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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,874	06/25/2003	Takahiro Amanai	12706/5	2241

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KENYON & KENYON  
Suite 700  
1500 K Street, N.W.  
Washington, DC 20005

EXAMINER
THOMAS, BRANDI N

ART UNIT	PAPER NUMBER
2873	

DATE MAILED: 03/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/602,874

Applicant(s)

AMANAI, TAKAHIRO

Examiner

Brandi N Thomas

Art Unit

2873

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,6,8-11,13,15,17,18 and 20 is/are rejected.
- 7) ☒ Claim(s) 3,5,7,12,14,16 and 19 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 6/25/03 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: Detailed Action.

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

2. Acknowledgement is made of receipt of Information Disclosure Statement(s) (PTO-1449) filed 7/30/03. An initialed copy is attached to this Office Action.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 2, 4, 9, 11, and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Shibazaki (2001/0038500 A1).

Regarding claim 1, Shibazaki teaches an image pickup lens unit comprising at least three optical elements (92 a and 92b) having at least an air interval (not numbered, shown under each lens) for forming an air lens wherein the optical elements are formed unitarily wherein the optical elements (92 a and 92b) are cemented mutually between the other optical elements which

Art Unit: 2873

neighbors in an optical axis or between sandwiching members (93) which are disposed between the other optical elements (figure 24).

Regarding claim 2, Shibazaki discloses an image pickup lens unit wherein side surfaces of the optical elements are aligned in a surface which expands in the optical direction (figure 24).

Regarding claim 4, Shibazaki discloses an image pickup lens unit wherein the surfaces of the optical elements except optical surfaces are provided with a light absorbing member (section 0082).

Regarding claims 9, 11, and 13, Shibazaki discloses an image pickup device which is provided with the image pickup lens unit (section 0147).

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 6, 8, 10, 15, 17, 18, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shibazaki (2001/0038500 A1) in view of being well known in the art.

Regarding claim 6, Shibazaki teaches the claimed invention except that it does not show at least optical surfaces of a pair of the optical elements are cemented together. It would be obvious to cement the optical surfaces of the optical elements, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use (In re Leshin, 125 USPQ 416). It would have been obvious to someone of

Art Unit: 2873

ordinary skill in the art at the time the invention was made to cement the optical surfaces of the optical elements for the purpose of providing maintaining the position of the optical elements and providing support and security.

Regarding claim 8, Shibazaki discloses an image pickup lens unit but does not specifically disclose an optical filter. However, it would have been obvious to someone of ordinary skill in the art at the time the invention was made to include an optical filter for the purpose of preventing the optical aberrations from being unstabilized.

Regarding claim 15, Shibazaki discloses an image pickup device which is provided with the image pickup lens unit (section 0147).

Regarding claims 10, 17, 18, and 20, Shibazaki teaches the claimed invention except that it does not show an image pickup element is cemented to the image pickup lens unit. It would be obvious to cement the image pickup element to the image pickup lens unit, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use (In re Leshin, 125 USPQ 416). It would have been obvious to someone of ordinary skill in the art at the time the invention was made to cement the optical surfaces of the optical elements for the purpose of providing stability and support.

***Allowable Subject Matter***

7. Claims 3, 5, 7, 12, 14, 16, and 19 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 2873

8. The prior art taken either singularly or in combination fails to anticipate or fairly suggest the limitations of the independent claim(s), in such a manner that a rejection under 35 U.S.C. 102 or 103 would be proper. The prior art fails to teach a combination of all the claimed features as presented in claim(s) 3, 5, 7, 12, 14, 16, and 19, wherein the claimed invention comprises an image pickup lens unit wherein conditional such as  $ST/TD < 0.7$  and  $MT/TD < 0.5$  are effective under the condition that an interval between a first surface in an optical system in which the optical elements are cemented and a last surface in the optical system, wherein a maximum of an inclination angle  $\theta$  is not more obtuse than 60 degrees on each optical surface in the optical elements, wherein a relationship such as  $0 < |\phi/\phi_A| < 0.5$  is effective under condition that a maximum power in an cemented surface of the lens is defined as  $\phi$ , and a power of the optical element which is formed unitarily in an overall optical system is defined as  $\phi_A$ , as claimed.

### *Conclusion*

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Dobashi et al. (20030179457 A1) discloses an image pickup element for picking up an object image.

Tanaka et al. (2003/0128442 A1) discloses an image pickup device which is reduced in size and thickness by integrally assembling an optical lens, a solid-state image pickup element, peripheral components, a substrate.

Takatori et al. (5151790) discloses an image pickup device for use in a general image pickup input apparatus.


Art Unit: 2873

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandi N Thomas whose telephone number is 571-272-2341. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on 571-272-2328. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
BNT

  
RICKY MACK  
PRIMARY EXAMINER